

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please **CANCEL** claims 14 and 16.

Please **AMEND** claims 13 and 15 in accordance with the following:

1-12. (Cancelled)

13. (Currently Amended) A RAID apparatus comprising:

a plurality of physical disk units storing a plurality of copies of each of logical volumes; and

a disk controller accessing any of the physical disk units which stores a designated logical volume to thereby access said designated logical volume,

said disk controller including:

a plurality of device ~~adapter~~adapters for accessing said physical disk ~~unit~~units in accordance with a request, said plurality of device ~~adapter~~are~~adapters~~ connected to each physical disk unit;

a memory storing a logical volume structure table storing statuses of the logical volumes and indicating said physical disk units of each logical volume, and a disk management table storing a the-number of operations requested to of each physical disk unit and statuses of said connected device adapters, for each physical disk unit; and

control means for referring to said statuses of the logical volumes in said logical volume structure table for the designated logical volume and judging whether a status of said designated logical volume indicates abnormal, comparing with each other the numbers of operations stored in said disk management table that correspond corresponding to a the plurality of physical disk units which store said designated logical volume with each other when said designated logical volume status is judged normal, selecting the single minimum waiting physical disk unit from the disk units storing the designated logical volume which has a minimum number of operations based on the comparison, on which said designated logical volume is allocated according to the comparison of the numbers of operations in said disk management table, judging whether or not said device adapter connected to said selected single minimum waiting physical disk is normal from referring to said statuses of said connected device adapters in said disk management table, and outputting a request to said judged normal determined device adapter.

14. (CANCELLED)

15. (Currently Amended) An access control method for a RAID apparatus comprising a plurality of physical disk units storing a plurality of copies of each of logical volumes, and a plurality of device adapters connected to each physical disk unit to access the physical disk units and a disk controller accessing any physical disk unit which stores a designated logical volume to thereby access said designated logical volume, said method comprising:

storing a logical volume structure table storing statuses of the logical volumes and indicating said physical disk units of each logical volume, and a disk management table storing a number of operations of each physical disk unit and statuses of said connected device adapters, for each physical disk unit;

determining a plurality of physical disk units which store a designated logical volume to access any of the determined physical disk units which stores the designated logical volume via a connected device adapter;

judging whether a status of said designated logical volume indicates abnormal by referring to the statuses of logical volumes in the logical volume structure table;

comparing with each other the numbers of operations stored in the disk management table that correspond corresponding to a the plurality of physical disk units which

store said designated logical volume ~~with each other~~when said designated logical volume status is judged normal;

~~selecting the~~a single minimum waiting physical disk unit from the disk units storing the on which said designated logical volume is allocated according to the comparison of the numbers which has a minimum number of operations based on the comparison in said disk management table;

judging whether or not said device adapter connected to said selected single minimum waiting physical disk is normal from referring ~~status~~tosaid statuses of said connected device adapters in said disk management table; and

outputting a request to said judged normal determined device adapter.

16. (CANCELLED)